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LARGER ASPECTS OF PASSENGER TRANSPORTATION IN METRO- POLITAN BOSTON

REPORT OF THE BOSTON CITY PLANNING BOARD

TO THE

MASSACHUSETTS PUBLIC SERVICE COMMISSION



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14/1

CITY OF BOSTON
PRINTING DEPARTMENT
1953

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INTRODUCTION.

Under the provisions of chapter 149 of the Resolves of 1914 the Massachusetts Public Service Commission is authorized and instructed to make a complete investigation and study of the transportation needs, present and future, of Boston and other cities and towns served by corporations having termini within the metropolitan district and report thereon to the next General Court.

The Massachusetts Public Service Commission accordingly wrote to the mayors and boards of selectmen of the various cities and towns of the metropolitan district, suggesting the desirability of delegating to some official body, perhaps to the planning boards, the duty of immediate study and consideration of the problems presented under the above-named Resolve, with the further suggestion that such planning boards, or other official bodies, consult and cooperate with other similar official bodies in the other cities and towns to the end that when public hearings were held they might be in a position to present to the commission the result of matured thought and study which would be of material assistance in arriving at a wise and sound solution of the metropolitan transportation problem as a whole.

This communication having been referred to the Boston City Planning Board by his Honor the Mayor, for its consideration, a conference was arranged with the chairman of the Boston Industrial Development Board, at which it was agreed that the efforts of the City Planning Board should be confined entirely to the problem of passenger transportation and those of the Boston Industrial Development Board to the question of freight transportation, to which it had already given considerable attention.

A conference was also arranged with the various planning boards of the metropolitan district, who were invited to be represented at a meeting to be held in the office of the Boston City Planning Board on Wednesday, September 23, 1914, in order that the matter might be approached with an intelligent and comprehensive understanding of the needs of the entire district.

As a result of such conferences and investigations the Boston City Planning Board adopted the following report on "The Larger Aspects of Passenger Transportation in Metropolitan Boston," which was presented to the Massachusetts Public Service Commission by the chairman of the Subcommittee on Streets and Transportation of the Boston City Planning Board, at a hearing given in the office of the commission on Tuesday, October 20, 1914.

BOSTON CITY PLANNING BOARD,

RALPH A. CRAM, *Chairman*.

WILLIAM C. EWING.

JOHN J. WALSH.

EMILY GREENE BALCH.

HENRY ABRAHAMS.

ELISABETH M. HERLIHY,
Secretary.

REPORT.

This general consideration of Boston's transportation needs may be treated to best advantage under three divisions — Physical, Corporate and Financial; the Physical to cover the needed improvements in service; the Corporate to cover the mutual relations of the various public service corporations; and the Financial covering the method of paying for the suggested improvements.

I. PHYSICAL.

In our study of the peculiar needs of the City of Boston as regards the transportation of passengers, the City Planning Board finds that the great weakness of our present facilities is the failure to deliver passengers reasonably near to their destinations in the business district of the city. We may therefore fairly state the problem as one of distribution. The practical side of this, of course, is a question of the location of stations. Using the word "terminal" in the sense of stations in the center of the city, we thoroughly concur in the opinion of the Metropolitan Improvements Commission that this is almost entirely a terminal problem. On page 16 of their report they say:

So far as the problem of bringing the railroads and other transportation facilities of Boston to the standard of efficiency required by modern views of economy and commensurate with Boston's potential future is to be solved by improved or additional instrumentalities within the Metropolitan District, *it must be largely, if not altogether, a terminal problem.* The efficiency of every transportation line entering Boston, whether by rail or water, is in great measure limited by the adequacy and arrangement of its terminals. Judged by modern standards the efficiency of a railroad depends no more upon the length and quality of its roadbed and the character of its equipment than upon the adequacy and excellence of its terminals.

As a chain is no stronger than its weakest link, so a railroad can be no more efficient than its terminals permit it to be. Confusion or rigidity of movement in a terminal situation will produce the same confusion and absence of flexibility throughout the entire transportation line using that terminal.

If we agree that the great problem in Boston's passenger transportation is that of distributing passengers near their desired destinations, and that this resolves itself into a question of the location of stations, we find that this is simplified when we compare the effectiveness of the present distribution of passengers by the street railway systems and the steam railroad systems.

In the heart of the city, the district bounded by Broadway Extension, Pleasant street, Charles street and the waterfront, there are twenty-seven subway, tunnel and elevated stations on our street railway system. When the Dorchester Tunnel is in operation, and especially if the Boylston Street Subway be extended to Post Office square, it will be possible to deliver every street railway passenger within a four-minute walk of his destination in the business district.

The distribution conditions of the railroads are very different. In the same district where there are twenty-seven intercommunicating street railway stations, there are only three railroad stations, and one of these is approached by ferry, the real railroad terminal being in East Boston. Moreover, these three stations are on the extreme edge of the business district, so that the walk to one's destination is the maximum that could be arranged without removing the stations from the city proper.

It is not too much to say that in the near future the distribution of passengers in the business district by the street railway company will be highly satisfactory. The present transportation problem of Boston, therefore, is this: *How to arrange our railroad stations so as to deliver passengers near their destinations.*

We now desire to call attention to three improvements which have been proposed during the past five years,

the adoption of one or all of which will, we believe, solve this problem. Before enumerating these three improvements, which for purposes of identification we shall refer to as "The Wead Tunnel," "Boston Avenue" and the "Joint Use of Tracks," let us say in the words of the Metropolitan Improvements Commission (page 22):

It is to be noted throughout the discussion of this plan, both with reference to the arrangement of freight and passenger terminals, that it presupposes and is conditioned upon the electrification of all passenger lines entering Boston.

1. The Wead Tunnel.

The Joint Board on Metropolitan Improvements reported to the Legislature of 1911, recommending the construction of a tunnel connection between the North and South Stations in accordance with a plan and report made to them by Mr. Leslie C. Wead. A careful study by Mr. Wead showed that the net land damages for the undertaking would approximate four million dollars. The transportation value of such a tunnel was considered to be so great that the railroad companies were prepared to pay a considerable part of the land damages in addition to the cost of the tunnel, and it was stated that it would result in saving the railroads five hundred thousand dollars annually in switching charges.

As a matter of personal convenience to the patrons of the railroads, such a tunnel would make it possible for persons working near the North Station to live in a southern suburb, and for those working near the South Station to live in a northern suburb, a condition which is not now very practicable. If the tunnel should have one or more intermediate stations, especially one near the market district which might have a physical connection with the East Boston-Cambridge Street Tunnel, then the improvement of distribution would be marked.

2. Boston Avenue.

It has been suggested that Portland street, which runs from the North Station to Hanover street, be extended

through Brattle square, Franklin avenue, Court square, City Hall avenue, Province street, Music Hall place, Winter place, Haymarket place, Bumstead court, Boylston square and Hollis place to the junction of Shawmut avenue and Tremont street. The Boston Chamber of Commerce has recently had a study made of this route by three prominent real estate experts. On the basis of a street sixty feet wide they estimate the net cost for land damages between Hanover street and Shawmut avenue to be a little less than three million dollars. The City Planning Board believes that such a street would be of very great value to the commercial development of the city and the convenience of its inhabitants for the following reasons:

First.— It will provide an entirely new inlet to the city, thus improving traffic conditions on existing thoroughfares.

Second.— It will encourage the spread of the retail district to the south and west.

Third.— The rebuilding on both sides will provide a double fire wall of first-class buildings through the entire length of the congested district.

Fourth.— By proper traffic rules it may be made to relieve Washington and Tremont streets of certain classes of vehicles.

Fifth.— The land on both sides may be sold under such restrictions as will permit a supervision of the external appearances of the new buildings so that Boston may have one street of architectural distinction.

As none of these advantages has to do with transportation, we will not consider them further at this time.

We wish, however, to call attention to the inviting possibilities of a railroad tunnel under such a street as this so-called "Boston Avenue." A tunnel under this street and extended under Tremont street to the present railroad location near Castle square would permit of a direct physical connection of the Boston and Maine Railroad on the north with the Boston and Albany Railroad on the west and the Providence Division of the

New York, New Haven and Hartford Railroad on the south. The existence of such a tunnel would make it possible to run local passenger trains from the suburbs through the middle of the city, with frequent stops, as is the present practice with the Elevated Railway trains. A certain proportion of the trains from the south and west could still be run to the South Station as at present and through the Wead Tunnel if that should be constructed, much as the elevated trains between Dudley street and Sullivan square go some by the Washington street route and some by Atlantic avenue.

If it should seem desirable in the future it would be comparatively simple to connect the Old Colony Division of the New York, New Haven and Hartford Railroad with the Boston Avenue Tunnel under Broadway Extension. If the Wead Tunnel should be open to such trains, and there be proper operating connections with the Summer street and State street rapid transit tunnels, a connection of the Old Colony with a Boston Avenue Tunnel may not be needed.

Even this brief discussion of Boston avenue should not be closed without reference to one of the most important of all possible developments of Boston's street system. When the railroads are electrified, the Boston & Albany tracks should be covered over for use as a street all the way from the Cove Street Bridge to Commonwealth avenue. This will give the city at small expense a new teaming thoroughfare which will cross at grade every important radial thoroughfare in the city. It is this new railroad boulevard which will make Boston avenue a new inlet to the city, tending to spread the business district to the South and West.

3. Joint Use of Tracks.

It has been suggested by the recent Joint Commission, constituted by chapter 108 of the Resolves of 1913, that it may be desirable to electrify and operate as a part of the street railway system:

1. The Shawmut Branch of the New York, New Haven & Hartford Railroad.

2. The Medford Branch of the Boston & Maine Railroad.

3. The Watertown Branch of the Fitchburg Railroad.

We further suggest:

4. A possible use of the tracks of the Boston Elevated Railway Company to bring electrified Providence Division trains through Washington street to Charlestown.

It is also evident that a future saving may be made by

5. A use as part of our street railway rapid transit system of the right of way of the Newton circuit.

II. CORPORATE.

Any joint use of tracks or transfer privileges, or similar cooperation among the four railroad and five railway companies which carry passengers, is likely to be clumsy and is almost certain to be inefficient.

The Boston Elevated Railway Company is in effect a combination of six different street railway companies; the Boston & Maine Railroad system is a combination of one hundred and twenty-five separate railroads. Similar statements could be made of most of the other transportation companies operating in Greater Boston.

It would be impossible to do to-day's business with the disunited transportation facilities of a few decades ago. It will be equally impossible to do the business of the future with the unrelated facilities of the present.

The remedy we would suggest is the logical conclusion of the consolidations of the past which have resulted in our present transportation corporations. In so congested a territory as the Boston Metropolitan District, efficient results cannot be obtained by diversified operation. The conception of the Boston Terminal Company, which supplies terminal facilities for two different railroads, should be expanded to include all transportation facilities from the center of Boston to such convenient junction points as approximate the limits of the Metropolitan district. Within these limits all transportation facilities, stations, rights of way and

so much of the rolling stock as is used exclusively within that district should be in a single ownership and should be operated under a single management.

III. FINANCIAL.

Past experience in many states leads us to the fear that any terminal corporation which might be created to take over all existing transportation properties in Metropolitan Boston would be of such tremendous importance as to overshadow the state. There is danger that the tail might wag the dog. A further objection to such a corporation is the difficulty of the private financing of so great a project. And, finally, is it wise to allow private profit to be made out of a service of such crucial importance to the community?

As a result of these considerations we believe that the Commonwealth itself should take over all railroad and railway properties within the above-mentioned limits. Great as would be the initial cost, we are convinced that the project could be so financed that it would prove no burden to the tax payers. The improvements recommended, including electrification, should be made by the state, after taking over the properties, and the cost of such improvements would be the only new outlay involved.

Whether these utilities, if owned by the state, should be operated by a single private company, as are the Boston subways, or by the state, as are the Metropolitan Water Works, is so important a question of public policy that we believe it should be determined by a referendum vote.

If state operated, the terminal district and its internal conduct should be under the *absolute* control of a general manager appointed by the Public Service Commission and removable only for cause; but contractual relations with connecting public service companies should be subject to the Public Service Commission.

In case private operation is decided upon, the use of

the transportation property in the terminal district should be leased to a private company, somewhat on the plan of our subway leases, but combined if possible with a sliding scale relation between fares and dividends similar to that provided in the case of the Boston Consolidated Gas Company.

SUMMARY.

The Boston City Planning Board recommends:

1. That ownership of all transportation facilities within the approximate limits of the Metropolitan District be taken over by the Commonwealth.

2. That these facilities be operated as a unit by either of two methods as the voters may determine:

- (a.) By the Commonwealth through a General Manager appointed by the Public Service Commission.

- (b.) By a private company which should lease the facilities from the Commonwealth.

3. That the proposed Boston avenue and Wead Tunnel be constructed substantially as already described, and that the railroads on opposite sides of the city be connected by tunnel under Boston avenue, with the object of carrying all suburban passengers to stations within easy walking distances of their destinations.

4. That the railroads be electrified and that the Boston & Albany Railroad tracks be covered over for a teaming boulevard from the Cove Street Bridge to Commonwealth avenue.

CONCLUSION.

We have not mentioned many important issues, such, for example, as the Boston connections of the Boston, Revere Beach & Lynn Railroad, much less have we endeavored to go into all the ramifications of the subject. We have, however, presented a mode of procedure which we believe will lead to a comparatively simple solution of all the problems involved, whatever their nature or magnitude.

We wish to close with an appeal to do great things. We believe, in the words of the recent Joint Commission, that—

No large measure of relief can be afforded to the various communities at the present time by a piecemeal dealing with the situation, and that the only hope of any substantial and effective immediate relief is by a thorough and fundamental consideration of the whole Metropolitan transportation problem.

We are too much in the habit of thinking in terms of details; we need broad and courageous planning of great things, such as resulted in the construction by the City of Boston of the first of those subways which are proving the solution of the transit problem in great cities.

TO CAMBRIDGE

TO HARVARD SQ. AND DASHLEY NEWTON

CAMBRIDGE

THE ESPLANADE

SUBWAY ENTRANCE

MASSACHUSETTS ST. STATION

SUBWAY ENTRANCE

BOSTON ST. STATION

PARK ST. STATION

ENTRANCE

EXIT

ENTRANCE

EXIT








THE CITY PLANNING BOARD
BOSTON, MASS.
OCTOBER, 1914

MAP OF
BOSTON
PROPER

Showing Proposed Railroad Tunnels and
Business Streets

To accompany Report to Massachusetts Public Service Commission on
THE LARGER ASPECTS OF PASSENGER
TRANSPORTATION IN METROPOLITAN BOSTON

LEGEND

 NEW STREET OVER B. & A. R. R. TRACKS
WEAD TUNNEL UNDER NEW STREET
R. R. TUNNEL UNDER BOSTON AVENUE
EXISTING SUBWAY STATIONS
PROPOSED RAILROAD STATIONS

 SURFACE LINES
SUBWAY LINES SURFACE CARS ONLY
WASHINGTON ST. CAMBRIDGE & DORCHESTER TUNNELS TRAINS ONLY
EAST BOSTON TUNNEL SURFACE CARS ONLY
ELEVATED STRUCTURE

L. A. P.
C. CO.
D.

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